REMARKS/ARGUMENTS

The Office Action stated that the application contains no Abstract. To comply with the request, Abstract on a separate sheet has been attached. It should be noted that the Abstract presented herein is a duplicate of the abstract that was provided in the PCT application No. PCT/US00/06960 from which the present application claims priority. Reference to priority applications has been added to the specification.

Multiple dependent claims 8, 15, 22 and 23 were objected to as being in improper form. To overcome the rejection, said claims have been amended by providing proper multiple dependence.

Claims 1-7, 9-14, 16-21 and 24-32, and 35 were rejected under 35 U.S.C. § 112, second paragraph as being indefinite. It is respectfully submitted that in view of the following comments and relevant amendments to said claims, the foregoing rejection should be reconsidered:

1. It is respectfully submitted that the recitation "low VOC" is not indefinite as it has been defined on page 2, lines 21-23 as a coating composition that includes less then 0.48 kilograms of organic solvent per liter (4 pounds per gallon) of the composition, as determined under the procedure provided in ASTM D3960.

2. The recitation in claim 12 of a "non-aqueous dispersion resin, stabilized dispersed polymer particles" has been amended by deleting reference to "stabilized dispersed polymer particles", which was intended as a descriptor to further clarify the form of the non-aqueous dispersion. To further clarify the foregoing, the specification on page 6, lines 24-25 was also amended by inserting "i.e.," between these two expressions. A typographical error ("crossslinked") was also corrected. Examiner's attention is drawn to column 10, lines 18-68 of the reference US 4,960,828, which was cited at page 6, line 12 in the specification. Said reference

describes that the non-aqueous dispersion can also be described as stabilized dispersed polymer particles.

3. A typographical error in claim 19 was corrected by deleting "of" and substituting therefor - - or - -.

4. The Office Action stated that claim 30 is subjective and fails to further define the claim as virtually any coating has a level of acid resistance. The foregoing rejection is respectfully traversed as the coatings of the present invention provide improved acid resistance over what is known. See the last entry in Table 1 on page 11 wherein minimum temperature without spot of synthetic acid rain solution for the clear coating of the present invention is 65°C as compared to that for control coating of 60°C. It might be noted that the specific test used is designed to correlate with acid rain damage that a coating may sustain in the outdoor environment. Since there is clearly improvement in acid resistance over control coating, claim 30 does properly defines the claim.

5. Claim 34 was amended by deleting a limitation that was already recited in claim 35.

Claims 1, 2, 9-14, 16-21 and 24-38 were rejected under 35 U. S.C. § 102 (b) as being anticipated by WO 96/34905 (hereafter Mauer). The foregoing rejection is traversed in view of the following remarks:

1. As stated in abstract, a curable coating composition of Mauer requires two components:

A: **One of the following** film forming composition:

I. Polyepoxide + Polyacid crosslinking agent;

II. Acrylosilane polymer + an acrylic polyol polymer + optionally an alkylated melamine-formaldehyde crosslinking agent; or

III. Polyisocyanate

AND

B: **10 % to 70 /** by weight of **tricarbamoyl triazin** (TACT) of the formula $C_3N_3(NHCOXR)_3$ where X is nitrogen, oxygen phosphorous, or carbon and R is alower alkyl group.

2. There is no recitation of TACT in any of the claims of the present invention. Moreover, the film-forming polymer (A) of Mauer does not teach or suggest a composition that includes isocyanate, epoxy compound **and** melamine components. Thus it is not seen why Mauer anticipates said claims of the present invention.

Claims 1, 2, 13, 16-18, 21, 24 and 33-38 were rejected under 35 U.S.C. § 102 (b) as being anticipated by JP 6-256714 (hereafter Satoru). The foregoing rejection is traversed in view of the following remarks:

Satoru is directed to an E-coat (electrocoat) primer which, as noted in the Abstract, contains a urethane modified polyester resin, epoxy resin, imino-group containing melamine resin and it must contain a specific pigment (Titanium white or diatomaceous earth at 200%-300% by wt) that improves chip resistance. It is not seen how the highly pigmented primer of Satoru anticipates the **clear** coating composition of the present invention or renders it obvious.

Claims 1-5, 9, 11, 13, 16-18, 21, 24-30 and 33-38 were rejected under 35 U.S.C. § 102 (b) as being anticipated by the commonly assigned EP 179,281 (hereafter Huybrechts). The foregoing rejection is traversed in view of the following remarks:

The title of Huybrechts is "Conductive Primers", which MUST contain 2-5% of carbon black (page 2, lines 28-32 of Huybrechts) to provide certain specific conductivity, thus rendering the resulting coating completely colored. Thus, it is not seen why the colored conductive primer of the Huybrechts anticipates the aforecited claims of the present invention nor one of ordinary skill in the art would use the teaching in Huybrechts to arrive at the present clear coating composition. Huybrechts on page 1, lines 24-27 teaches that Huybrechts' compositions are used as primers primarily over organic-based composites. Multiple coats including a clear coat are then applied over

the primer of Huybrechts. Thus, it is clear that there is no teaching or suggestion in Huybrechts to use a conductive primer as a clear coating composition.

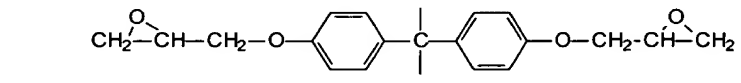
Claims 1-5, 9, 11, 13, 16-18, 21, 24-30 and 33-38 were rejected under 35 U.S.C. § 102 (b) as being anticipated by US 4,403,086 (hereafter Holubka). The foregoing rejection is traversed in view of the following remarks:

1. The composition of Holubka does not contain nor does it suggest the use of an epoxy compound as required by the instant invention. Holubka requires a polyol and although not required, Holubka favors the reaction of a glycol with a diepoxide to form his polyol. It is clear from the examples that the polyol in Holubka does not contain epoxy groups as required by this invention.

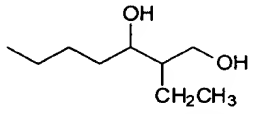
Holubka Example IV

Bisphenol A diepoxy reacted with 2-ethyl-1,3-hexanediol:

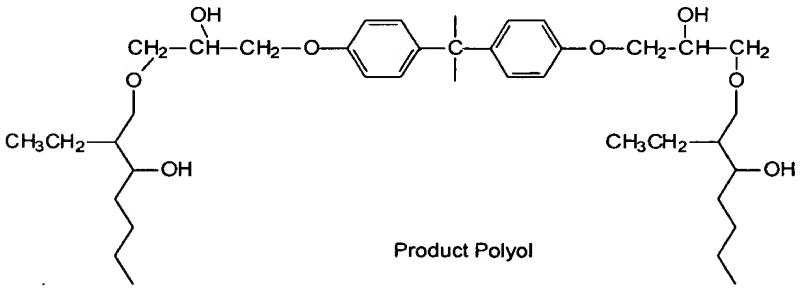
(Disclosed at column 11, lines 16-26 of Holubka)



Bisphenol A Diepoxide



2-Ethyl-1,3-hexanediol



Product Polyol

For simplification, the above structure is shown with one Bisphenol A (BPA) molecule. Although the Epon® 828 used in this example has a very low molecular weight nevertheless there are species that include more than one BPA unit. In all the cases the end groups are the same and the reaction shown is identical. All of the other examples show the same reaction using a variety of epoxy compounds and different glycols. From the foregoing, it is clear that Holubka does not anticipate said claims of the present invention, as there is NO epoxy component used in Holubka. The epoxies are used as monomers to produce epoxy/polyol adducts that are not epoxide functional. The epoxy it turns out is all consumed during the synthesis. Examples I, II, IV, VI, VII, and VIII in Holubka are all of the examples where epoxy/polyol adducts are made. **In all of them the reactions are run until no epoxy absorption is found by IR**. Thus, it is not seen why Holubka anticipates or renders obvious the aforecited claims of the present invention.

Claims 3, 5, 6 and 12 were rejected under 35 U.S.C. § 103 (a) as being unpatentable over Mauer, or Satoru, or Holubka or Huybrechts, each in view of US 5,994,469 (hereafter December) and US 4,849,480 (hereafter Antonelli). The foregoing rejection is traversed in view of the following remarks:

The abstract of December discloses a composition having latent amine functionality made from anhydrides and amines for reacting with cyclic carbonates. December at column 1, lines 33-40 mentions in the passing that blocked acid catalyst can be used in a composition containing melamine formaldehyde resin curing agent that reacts with hydroxyl groups on the resin. However, December further discloses (column 1, lines 40-42) that such crosslink bonds contain undesirable ether linkages and the resulting coatings provide poor overall durability. Thus, it is not seen why one of ordinary skill in the art would combine the aforestated references with December to arrive at the aforecited claims of the present invention, since the resultant coating mat have poor overall durability, thereby teaching away from said claims of the present invention.

The abstract of the commonly assigned Antonelli reference discloses preparation of crosslinked polymer microparticles. In view of the comments made earlier regarding Mauer, or Satoru, or Holubka or Huybrechts, the aforecited claims are not obvious. Thus, even if one were to combine any of those references with Antonelli, one of ordinary skill in the art would not consider said claims obvious.

New claims have been presented for the Examiner's kind consideration. Support for claims 39, 40, 41 and 42 is found in claims 8, 15, 22 and 23, respectively.

Applicant respectfully requests that a timely Notice of Allowance be issued in this case. Should the Examiner wish to discuss any issues involved in this application, the Examiner is respectfully invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,

Sudhir G. Deshmukh
Reg. No. 33,677
Tel.: (302) 992-4385
Fax: (302) 992-2533

Date: November 17, 2003

HIGH SOLID EPOXY, MELAMINE AND ISOCYANATE COMPOSITIONS

ABSTRACT OF THE DISCLOSURE

A low VOC clear coat composition which comprises an epoxy compound, a melamine component and an aliphatic polyisocyanate having an average of 2 to 6 isocyanate functionalities, and optionally contains a catalyst (e.g., organtoin catalysts, acid catalysts and combinations); a pollyhydroxyl functional compound (e.g., polycarbonate polyol); or other additives (e.g., light absorbers and light stabilizers). Also disclosed is an article coated with the clear coat composition, a process of making the composition, and a process of applying the composition to, for example, a automobile body